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ROBERT W PITTS
PO BOX 11483
WINSTON-SALEM, NC 27116-1483

EXAMINER

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 07/08/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,885

Applicant(s)

PRICE, WILLIAM RAYMOND

Examiner

Joseph S. Del Sole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 10-14 and 22-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 15 is/are allowed.
- 6) ☐ Claim(s) 1,2,4,6-8,16,20,21 and 27 is/are rejected.
- 7) ☐ Claim(s) 3,5,9 and 17-19 is/are objected to.
- 8) ☐ Claim(s) 1-27 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 24 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, 15-21 and 27, drawn to method of manufacturing dentures, classified in class 264, subclass 220.
 - II. Claims 10-14 and 22-26, drawn to apparatus for manufacturing dentures, classified in class 425, subclass 175.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as injecting just a single material into the mold to form a denture-like product for teaching purposes.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Robert Pitts on 6/19/03 a provisional election was made without traverse to prosecute the invention of group I, claims 1-9, 15-21 and 27. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 10-14 and 22-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Information Disclosure Statement

5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

6. The disclosure is objected to because of the following informalities: **a)** "m114A" at line 2 of page 17 should be changed to --114A--; **b)** "two arts" at line 7 of page 21 should be changed to --two parts--.

Appropriate correction is required.

Drawings

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **a)** "48" as discussed at line 4 of page 13; and **b)** "169" as discussed at page 16, line 13. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

8. Claims 3, 21 and 27 are objected to because of the following informalities: **a)** "tissue side or the denture" at line 13 of claim 3 should be changed to --tissue side of the denture--; **b)** claim 21 currently states that "*exterior* side mold is fabricated before fabrication of the *exterior* side mold" (emphasis added), this is impossible and reference to claim 20 indicates that this claim should be interpreted as the converse of claim 20, specifically as --exterior side mold is fabricated before fabrication of the interior side mold--; **c)** "being position such that" at line 7 of claim 27 must be changed to --being positioned such that--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-2, 16 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Diasti et al (6,224,375).

Diasti et al teach a method with the steps of forming a mold by depositing a material in surrounding relationship to the original denture before the material takes a substantially permanent set (col 6, lines 4-9); allowing the material to take on a

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substantially permanent set; removing the original denture from the mold (col 6, line 28); storing the mold with the mold retaining its substantially permanent set configuration (col 6, lines 58-67); introducing initially fluent denture material into the mold and permitting the denture material to solidify within the mold when a replacement denture is subsequently needed (col 7, lines 1 -27); the mold is formed within a container in which the mold is storable to allow subsequent fabrication of the replacement denture (Fig 13); the method including fabricating a tissue side mold (shown at Fig 14); fabricating an exterior side mold (shown at Fig 13); a parting surface between the tissue side mold and the exterior side mold is located to substantially include an edge separating a denture tissue side from a denture exterior side, the tissue side mold and the exterior side mold forming a mold cavity (shown at Figures 3 and 11-12); introducing material suitable for forming a duplicate denture (col 9, lines 15-25); either the tissue side mold can be fabricated before the exterior side mold or the exterior side mold can be fabricated before the tissue side mold (col 13, lines 52-42).

11. Claims 4 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Pollock et al (5,599,491).

Pollock teaches a method for fabricating a denture with the steps of constructing a mold with a mold cavity for forming the denture; depositing a first material into a portion of the mold cavity to form denture teeth; forming a first passage in the mold, the first passage entering the mold cavity at a location spaced from the portion of the mold cavity in which the first material is deposited to form denture teeth; injecting a second material through the first passage into the mold cavity to form a gum portion of the

denture so that the mold cavity is filled with the first and second materials; and bonding the first and second materials to form the denture (Figs 14A-14J and col 3, line 43 - col 4, line 59); and the mold flask is positioned such that air bubbles in the latter mold portion, when solidified, are formed at locations spaced from the mold cavity (Figs 14C and 14J).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollock et al (5,599,491) in view of Bakanowski (5,324,186).

Pollock et al teach the method as discussed above.

Pollock et al fail to teach first, second and third passages drilled into the mold through flanking sections of the mold on opposite sides of the central section

Bakanowski teaches drilled openings through which a fluent material can be injected to form first or second mold sections for the purpose of enabling less viscous material to be used to form the mold and the opening allows access to the interior of the mold (col 3, lines 58-68).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Pollock et al with drilled passages through flanking sections of the mold on opposite sides of the central section as taught by Bakanowski because it enables a wider range of materials, including both first and second materials, to be used for mold formation.

References of Interest

15. Kimura (5,151,279) is cited of interest to show the state of the art.

Allowable Subject Matter

16. Claim 3 would be allowable if rewritten or amended to overcome the objection, set forth in this Office action.
17. Claim 15 is allowed.
18. Claims 5, 9 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
19. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest **a)** a method of duplicating a denture by covering the tissue side of a denture, positioning a lid on the deformable material, mounting the lid on a flask base, introducing a curable material into the flask

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base so that the curable material fills open portions of the flask and forms an impression of the remaining portions of the denture including teeth, removing the deformable material from the tissue side of the denture; introducing a curable material into the volume vacated by the deformable material and curing; removing the denture leaving a mold cavity formed between the tissue side denture mold and the solid mold base; forming a duplicate denture by filling the mold cavity with material suitable for forming a denture; **b)** a method of providing a substitute denture having the steps of constructing a mold having a shape corresponding to the shape of the original denture prior to the loss of the original denture; forming a first mold section conforming to only a tissue side of the original denture and forming a second mold section conforming to all exterior surfaces of the original denture other than the tissue side of the denture; **c)** a first material is solidified to a first subcomponent, a portion of the first subcomponent having the shape of the exposed portions of the teeth in the denture fabricated in the mold, wherein the first subcomponent is removed from the mold and trimmed to remove material that would extend beyond a gum line at an edge of the denture teeth, and wherein the first subcomponent is reinserted into the mold after trimming and before the second material is injected into the mold cavity in combination with the limitations of the parent claim or the denture is trimmed along a juncture between the first passage and the mold cavity to remove the denture from the mold; and **d)** fabricating the exterior side mold by introducing a curable material into a denture flask base after positioning the denture in the denture flask base with the denture tissue side being covered to block the curable material in combination with the limitations of the parent claim.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Del Sole whose telephone number is (703) 308-6295. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (703) 308-0457. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for non-after finals and (703) 872-9311 for after finals.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Joseph S. Del Sole

J.S.D.
June 26, 2003



ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300-1700

6/20/03